Massachusetts Water Resources Commission
Meeting Minutes for February 12, 1998

Commission Members in Attendance:

Mark P. Smith	Designee, Secretary of Environmental Affairs
Arleen O'Donnell	Department of Environmental Protection
Peter Webber	Department of Environmental Management
Jane Mead	Massachusetts Coastal Zone Management
Marilyn Contreas	Department of Housing and Community Development
Mark S. Tisa	Dept of Fisheries, Wildlife, and Environmental Law Enforcement
Bob Zimmerman	Public Member
Gary Clayton	Public Member

Others in Attendance:

Jan Reitsma	Executive Office of Environmental Affairs
Richard Thibedeau	DEM, Office of Water Resources
Vicki Gartland	DEM, Office of Water Resources
Michele Drury	DEM, Office of Water Resources
Ellen Gugel	EOEA
Lou Wagner	Massachusetts Audubon Society
Lealdon Langley	DEP, WMP
Gretchen Roorbach	MWRA
Steve Asen	DEM, Office of Water Resources

Agenda Item #1: Executive Director's Report

Mark P. Smith called attention to an upcoming event, "Water Management in the 21st Century", a symposium on Cape Cod on February 25 which he encourages Commission members to attend if possible.

Bob Zimmerman noted that the Charles River Corridor Council is meeting on March 19 in the Town of Franklin to discuss decentralized wastewater and alternatives for treatment and groundwater recharge. Invitations are expected to be sent to WRC members next week.

Agenda Item #2: Vote: Adoption of meeting minutes of January 8, 1998 Meeting

Smith proposed an amendment to the minutes as presented. The statement at the bottom of page three (agenda item #5) that reads "The New Source Approval process *is the preliminary step to* a WMA permit..." be changed to "The New Source Approval process *occurs before* a WMA permit..."

The proposed change passed unanimously, and the main motion to accept the minutes passed unanimously.

Smith proposed to reverse the order of agenda items 3 and 4 due to Jan Reitsma's participation at today's meeting. Commission members agreed.

Agenda Item #3: Developing and implementing new WRC policies

The Commission will develop a plan for implementing the two policy votes of the meeting on 1/29/98 (WRC guidelines have not been updated since 1987). M. Smith anticipates that developing a new policy will involve small workgroups on sub-topics needing more research and detail which will then be brought to the Commission and the public for comment. The policy will inform staff and set the scope of what the policy will include. Three areas of policy development:

1. Adoption of certain performance standards related to the eight criteria of the Act
2. A better policy on reporting and enforcement of conditions
3. Better coordination between the various permit programs and agencies so that applicants know the requirements early on in the process

Jan Reitsma opened the discussion by sharing EOEA's perspective and intentions. Reitsma has discussed the Canton decision with Trudy Coxe. She wants to send a strong message to water suppliers that the Canton decision will be the last of its kind (i.e., an approval with conditions). Reitsma asks that the WRC develop specific standards for future applications and put communities on notice ASAP, particularly in stressed basins. Reitsma urges the Commission to move quickly. Since there are several municipalities in the pipeline for new source approvals, they will need to know of changes soon.

As to approach, Reitsma sees a compromise between sending an aggressive message immediately and involving constituents in the process. Reitsma asks if the policy developed by the WRC will also be adopted by the WMA and possibly other programs. Trudy Coxe will speak at the water management conference on February 25 on Cape Cod and would like to announce the new general direction of permit requirements. Specifics can be developed later.

Reitsma would like to see a communication ready for public release by March. He noted that the memo to municipalities should include information on grants and financial assistance. It should also explain how the new requirements fit into the watershed strategy. He would like to see the communication from other programs such as the WMA in addition to the WRC.

Discussion

Bob Zimmerman started off with his view that a missing criterion is ***whether a town needs additional water*** (for interbasin transfers involving withdrawals). He suggests the legislation may need to be modified if this is not possible now. Lealdon Langley explained that in the WMA process, need is considered; however, there may be a need for redundancy (e.g., due to contamination).

J. Reitsma suggested that even though the Commission does not formally consider need, that it require a ***need analysis*** to be provided before an application is accepted as complete. ***Efficiency standards*** is one way to address need.

A. O'Donnell believes the Commission should weigh the ***pros and cons of alternatives*** with respect to each application, considering the risk of dependence on one source and the development of local sources vs. dependence on the MWRA or other regional supplier. ***Comprehensive water supply planning*** should be required of applicants (see criteria #7).

From this point on, the Commission then proceeded through the eight criteria one at a time. Streamflow was left until the end.

Criterion 1 (MEPA review): The MEPA regulations are currently under review. The Commission discussed the notion that additional criteria could be defined to determine when an EIR is required.

Criterion 2 (viable sources): A. O'Donnell suggests that an ***alternatives analysis*** should include viable water sources as well as alternative wastewater alternatives even in certain wastewater cases when the transfer is a result of a new water supply coming online. The alternatives analysis should include local disposal options. It was noted that a sample alternatives analysis should be developed in advance of anticipated requests for one. Others agreed that the alternatives analysis should look at regional supplies, in addition to all possible sources within the community.

I & I standards should be applied to all types of interbasin transfers says O'Donnell. To the extent possible, specific quantitative performance standards/guidance will be provided (MWRA has developed I & I standards). Although water supply demand cannot be met by achieving a target I & I number alone, I & I should still be required together with the other criteria to get the end result.

M. Smith noted that it will be difficult to require I & I reductions in advance of application approval since it can take years; and if an applicant is adding water supply, should the Commission hold up the application because the town happens to have a wastewater transfer until the standard is met? On conservation, the Commission can and should require conditions to be met in advance because conservation meets some of the need, but this is less true with I & I on the wastewater side. It was noted that I & I standards will need further development by a smaller workgroup. The criteria need a clear definition of ***"reasonable effort"***. It should include regional but in-basin sources and should include decentralized local wastewater treatment for local sources.

A. O'Donnell raised the issue of ***stormwater management***. The group thought it more useful as a mitigation measure than as a requirement.

M. Smith suggested the concept of returning water to the basin at a 2 to 1 ratio as a mitigation measure. B. Zimmerman thinks a 3 to 1 ***ratio of water returned to basin*** is better because of evapotransportation and the uncertainty that where water is withdrawn is where it is in fact returned.

There should be requirements to get municipalities to look at ***regional supplies*** and to work with neighboring communities in planning for and developing water supplies. In most instances aquifers are regional resources. M. Smith, B. Zimmerman, and others agree that there could be

regional aquifer mapping and well-siting requirements; GIS maps are available to aid this effort.

Criterion #3 (water conservation): Water conservation criterion is a good candidate for strict efficiency standards (gpd per capita, etc.), partly because it is economically cheaper to do conservation than to go through the application process; SRF and maybe other funding is available for conservation projects to assist towns that do not have the financial capacity to undertake conservation projects. Show towns how it is cheaper to do conservation than to go through the Interbasin Transfer Act process and develop a new source. Duxbury is an example of a community that did conservation and then didn't need a new water source.

M. Smith would like to see specific performance standards for this criterion such as gallons per capita per day and retrofits of all public buildings.

Criterion #6 (pump test): Pump tests are currently required to within 1000 feet and out to Zone 2; tests for 180 days with no recharge.

Criterion #7 (local water resources management plan): Plans should be more comprehensive than those required today. They should include information on contaminated wells and abandoned water supplies and the cost of their rehabilitation, among other requirements. With the watershed initiative and basin planning in place, basin plans should address the needs of communities for water and the available resources. The plans will also include regional resource mapping. M. Smith suggests that further refinement is a task for a smaller workgroup to define key elements that towns need to address including growth management and future water needs and supply. Before going on to streamflow, M. Smith concluded this part of the discussion with his ideas for a process for comprehensive policy development which includes four pieces:

1. Revised standards
2. A core group to develop a public process
3. Summary of financial and technical assistance available
4. Regional analysis of water needs and potential supplies (through the watershed planning process)

Criterion #5 (streamflow):
V. Gartland said the missing link is how to go from knowing how much water is being withdrawn and how much is left in a river to knowing the actual impact on the resources (e.g., fish). Up-to-date information on fisheries, species, and what is planned (e.g., fish ladders) is needed. But then a method to make the connection between streamflow and impact on the resource is needed.

M. Tisa says the problem is that either the data doesn't exist or the data is old in most cases. Needed data include a fish inventory, the depth and velocity of flow, the key indicator species, any shifts in fish communities or change in habitat (e.g., cold water fishery to warm water fishery), reduction in diversity, etc.

G. Clayton urged the Commission to "go the safe route" by using monthly median unless a water supplier challenges that in which case, the WRC can ask the supplier to gather the data. Median

flows mean the source will not be used 50 percent of the time so additional storage might be necessary in order to use the source. Tisa says that aquatic base flow is the generally used standard. There is a need for applicants to analyze streamflow based on aquatic base flow and 15 percent cumulative impact.

The streamflow subgroup will include M. Tisa and others. Tisa doesn't want water suppliers in the streamflow subgroup initially because he wants the group to focus on science first without distraction; A. O'Donnell thinks that suppliers should be included early on. R. Thibedeau remarked on the need for input from suppliers in developing the standards for this criterion at some point. The first meeting of the subgroup is scheduled for February 24. The Commission needs to send letter to energy Facilities Siting Board on what standards to be used.

Other Issues:

L. Langley and M. Drury urged communication with towns well in advance what's needed because of long lead times; once a municipality gets in the door with an application, it is pretty far along and may be too late.

P. Webber noted that the Blackstone and Deerfield Rivers have impacts due to hydrodams and that this factor be acknowledged when requesting new information from towns applying for new sources. There are two categories of policy guidelines needed: 1) what applicants need to provide; and 2) the standards by which applications are judged.

L. Langley noted that the WMA advisory committee may be a vehicle for this group's work, but in any case, they should be informed of the WRC's work.

Enforcement and reporting requirements

L. Langley suggests the new policy needs to address the timing of reports, allow for permit modifications and conditions modification, be site-specific, obtain reports in real time, and require verbal reporting when minimum streamflow is reached and subsequent frequent reporting until streamflow is restored as well as the pumping records for those dates. Langley said that if the WRC gets tougher on reporting, far fewer violations will result. He recommends more frequent reporting and suggests that this whole enforcement problem will only get worse as approvals get older if is not addressed now.

Technology can be used to help implement a policy. For example, internet streamflow gauge data; telemetering that increases the ability to respond quickly; an alarm that rings more than one telephone including the offices of DEM and/or DEP staff; an alarm as minimum streamflow is approached, and ask the supplier what they will do to avoid a violation. Legal questions that need answers: Should DEM go for its own enforcement ability? Should there be stipulated penalties attached to violations? Or a Notice of Noncompliance? WRC has no authority for stipulated penalties but could they be tied to the WMA?

Peter Webber noted that these recommendations are counter to other regulatory efforts to move away from the "command and control" approach and seem to rely on a lot of reporting and review of reports. Arleen O'Donnell responds that there are so few interbasin transfers and notes

the poor track record. Concerning the quantity of reporting, it was agreed that each report must serve a specific purpose.

Langley noted that automated databases are key to implementing any new enforcement policy. They must be able to collect data, report violations, and produce notices of noncompliance. This will simplify review so that there aren't reports sitting on someone's desk awaiting review. He also notes that it is not sufficient to require applicants to install a new gauge. With a new gauge, there is no baseline data. Langley will return to the Commission with a more detailed policy and says he will need some help from the Commission on some of the details.

Agenda Item #4: Update: Rockport water supply issues

P. Webber excused himself from the meeting due to a potential conflict of interest as he resides in Rockport.

Mark Smith and others met with Rockport's water supply consultants and the Rockport Conservation Commission. A list of nine activities that Rockport must undertake for approval was developed. The list included meter calibration, plan development, etc. They are to meet again in two to three weeks to review the data. While this is not an Interbasin Transfer, WMA staff have asked the WRC for guidance on recommended flow levels (see past meeting minutes).

Discussion:
Discussion centered on the appropriate streamflow number. On what basis should a number be recommended? Is flat-lining safe here because of the intermittent nature of these streams? As they are intermittent streams, what is present to protect? Can Rockport implement a sequential operation of diverting these streams? The consultant's plan focused on water supply for the year 2030, so sequencing may not have been considered. If the Commission pursues this line, is it designing the system for the town? WRC is not in that business. How does the Commission determine what to protect if there are no fish? Look at bugs?

There will be a forthcoming memorandum summarizing the next steps on this policy development.

Meeting Adjourned.